

DO NOT USE FOR ORAL SURGERY

BEFORE INSTALLING THE TURBINE, CAREFULLY READ AND FOLLOW ALL OF THESE INSTRUCTIONS. SAVE THESE INSTRUCTIONS FOR FUTURE REFERENCE AND OBSERVE ALL WARNINGS AND CAUTIONS.

Indications For Use

High speed dental handpieces are used intraorally by trained dental professionals for drilling and preparation of dental caries for restoration, such as fillings. The Autochuck Turbine is a component of the high speed handpiece that enables the handpiece to perform the procedures required.

135°C

Sterilizable up to 135°C

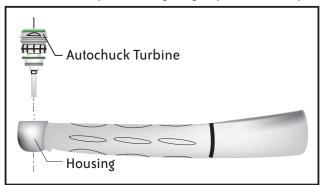
Turbine Installation

Note: Replace the turbine when the handpiece fails to achieve full speed and/or increases sharply in noise level. The replacement cartridge is available from your dealer and is easily replaced in the office. To order a replacement, see 'Replacement Parts' section for **StarDental** part numbers.

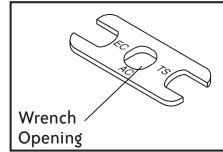
- 1. Using wrench supplied, remove old end cap. Push turbine out using a shipping pin or small bur.
- 2. Inspect housing before cleaning. Remove any obvious debris to prevent damage and to insure performance of the new turbine. Also, remove o-ring(s) from housing at bur opening, if present.
- Connect handpiece and run air through turbine housing without turbine installed for 5 seconds.
- 4. Clean housing thoroughly with a cotton swab and isopropyl alcohol. Dry with syringe air.



5. Place new turbine assembly into housing and gently insert until fully seated.



- 6. Position and engage threads of end cap into the housing by hand until snug.
- 7. Tighten end cap with the combination end cap wrench, employing the wrench opening marked AC as shown. Position wrench with marked side facing end cap for best wrench control.



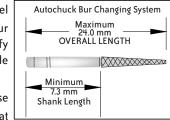
Autochuck Operation

CAUTION: Use burs that have an overall length of less than 24 mm and shank length of at least 7.3 mm.

Use standard length concentric diamond and carbide burs with .0628" nominal diameter friction grip shanks designed for high speed handpieces. Every **StarDental** Diamond Bur meets specifications below for recommended lengths. Contact your dealer for a complete list of **StarDental** Diamond Burs. **StarDental** autochuck turbines have the following bur requirements:

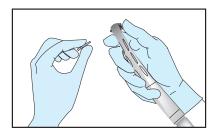
Use only burs with hardened, tempered steel shanks or carbide shanks. Every **StarDental** Bur maintains required hardness. Before use, verify concentric rotation by operating handpiece outside the oral cavity in a safe place.

Note: Do not use burs that produce excessive noise or do not run concentrically. Do not use burs that are modified, eccentrically designed, or have bent or 'soft' (non-heat treated) shanks.



Autochuck Bur Changing System

- 1. Insert bur into autochuck until resistance is felt.
- 2. Press autochuck end cap button and continue to feed-in bur until it stops.
- 3. Release end cap button. Now, apply light inward force to the dental bur. This will help set the chucking mechanism for initial start up. (Always tug on bur after it has been installed to confirm that it is secured.)
- 4. **To remove** bur, grasp handpiece firmly so your thumb touches the end cap and push.
- 5. Pull bur straight out.
- 6. Release endcap.



CAUTION: Never press the autochuck end cap button or rest the end cap against any part of the oral anatomy during handpiece operation. Pressing the end cap while a bur is rotating can activate the chuck mechanism and result in end cap heat-up and/or loss of bur retention.

SAFETY INSTRUCTIONS

- 1. Always tug on bur after chuck is loaded to confirm that the bur is secured.
- Before use, verify concentric rotation by operating the handpiece outside the oral cavity in a safe place. Do not use burs that do not run concentrically or produce excessive noise.
- 3. Never operate handpiece without a bur installed.
- Always use burs with an overall length of less than 24 mm. Shank length must be at least 7.3 mm.
- 5. Use only recommended burs to prevent damage to autochuck and in some cases to prevent burs from improper or incorrect placement. An improperly clamped bur may dislodge during use, causing injury to you or your patient. A sudden, high-pitched sound or increased vibration while handpiece is operating alerts the operator to the possibility that the chuck is not clamped sufficiently to retain the bur or a bent bur is inserted.
- 6. When using the autochuck, never press end cap while bur is rotating.
- 7. For maximum life, operate handpiece at correct psi.

WARNING

Always insert a bur the full length of the chuck. If you attempt to extend it from the chuck, the bur may dislodge during use and cause injury to you or your patient.

ACAUTION

Replace the turbine when the handpiece fails to achieve full speed and/or increases sharply in noise level. This is an indication of a failing turbine. A failing turbine will reduce the efficiency of the handpiece and may result in end cap heat up. See "Turbine Installation".

Cleaning & Sterilization

| Cleaning & Steril | ization | | |
|--------------------------------|--|--|--|
| A CAUTION | It is the responsibility of the user to use only FDA compliant sterilizing equipment and accessories that are capable of meeting the manufacturers recommendations below. | | |
| ^ | Do not exceed 135°C | | |
| <u>A</u> CAUTION | To prevent damage to the bur, use an autoclavable bur block. Do not use: • dry heat sterilizer • chemical disinfectors • surface wipes • sterilizer bags • containing disinfectants • the bur, use an autoclavable bur block. • cold sterilizers • cold sterilize | | |
| Limits On Reprocessing | Repeated processing has minimal effect on this handpiece. End of life is normally determined by wear and damage due to use. | | |
| INSTRUCTIONS | | | |
| _ WARNING | Clean and sterilize handpieces and burs as soon as practical before first use and after each patient. | | |
| Containment and | It is recommended that handpieces are reprocessed as soon as is | | |
| transportation: | reasonably practical following use. | | |
| Preparation for cleaning: | Remove handpiece from swivel. No further disassembly is required. | | |
| Cleaning - Automated: | Washer-disinfectors are not recommended. | | |
| Cleaning - Manual: | Cleaning Handpieces: Optical Surface (1 of 2) Internal Surface Optical Surface (1 of 2) Internal Surface Internal Surface Remove debris from external surfaces using a small brush and isopropyl alcohol. Clean internal surfaces of the handpiece at the swivel connection location using a small brush and isopropyl alcohol. Optical surfaces can be cleaned with a cotton swab soaked in isopropyl alcohol. Dry thoroughly Repeat after each patient. Cleaning Diamond Burs: After each use, clean the diamond bur by running it against a wet diamond cleaning stone. To mechanically clean, the diamond bur should be held in a solution of either enzymatic presoak, Sparkl* Dental Instrument Cleaner StarDental Part# 205472, or wate Rinse the bur thoroughly and allow it to dry, then Sterilize – See Sterilization. to ensure that your High-Speed chuck continues to be in optimum working condition - clean once a week with Junk-Out High-Speed Chuck Cleaner Kit P/N 263790: Shake well before use Install brush to handle. See diagram at right. Use one new brush per cleaning application. Do not reuse brushes. Remove bur from chuck Dip brush into bottle. Remove excess cleaner from the brush Insert brush into bur end of turbine. Clean gently by rotating and inserting the brush in and out of the turbine. | | |
| | - Repeat process if necessary. Reseal cap on bottle immediately after use to reduce evaporation. | | |
| Lubrication: | Lubricate - For Lubricated Handpieces ONLY - See 'Lubrication' instruction section | | |
| Disinfection: | Use steam sterilization exclusively for complete sterility as outlined below | | |
| Maintenance: | Use Junk-Out High Speed Chuck Cleaner Kit (263790) once a week prior sterilization to ensure optimum working condition of the chuck, per steps about 15 per 16 per | | |
| Inspection & function testing: | See Autochuck Operation or Troubleshooting sections of this manual. | | |
| Packaging: | Single: A standard sterilization packaging material must be used. Ensure that the pack is large enough to contain the handpiece without stressing the seals In sets: Handpieces may be loaded into dedicated instrument trays or | | |
| | general purpose sterilization trays. Ensure that cutting edges are protected and do not exceed the tray manufacturer's limit per tray. Wrap the trays using appropriate packaging materials and methods. | | |

| Wrapped Instrument | Gravity Type Autoclave: | Pre-Vacuum Autoclave: |
|-------------------------|---|----------------------------------|
| Sterilization: | Minimum of 15 minutes at 132° C Minimum of 30 minutes at 121° C | • Minimum of 4 minutes at 132° C |
| | Do not exceed 135° C | |
| Drying: | Dry the handpiece for 30 minutes minimum using the sterilization dry cycle and allow the handpiece to cool to room temperature in bag prior to use. If moisture is present, increase your sterilizer dry cycle appropriately. | |
| Storage: | Store in bag after sterilization until ready to use. | |
| Additional information: | Do not exceed the sterilizer manufacturer's guidelines for load capacity. | |
| Manufacturer contact: | See front or back panels of this manual. | |
| | | |

Lubricating

For maximum turbine life do not exceed recommended pressure.

LubeFree Ceramic Bearing Autochuck Turbine

- This turbine uses a sophisticated ceramic bearing design and, therefore, requires no lubrication. To ensure the life of this turbine, do not lubricate it. If it gets lubricated even once, it MUST then continue to be lubricated for the rest of its life.

Lubricated Ceramic Bearing Autochuck Turbine

Note: Lubricate handpiece with DentaLube II, StarDental* Part #262539, prior to each sterilization procedure.

- 1. Confirm that the bur is in the chuck. (Never operate handpiece without a bur in place.)
- 2. After each patient, operate handpiece for 20 seconds with air and water spray activated.
- 3. Disconnect handpiece from swivel (or directly from tubing if swivel is not being used).
- 4. Assemble conical red tip applicator, StarDental® Part #202954, into DentaLube® II bottle cap.
- 5. Place three (3) drops of DentaLube II, StarDental® Part #262539, into drive air at rear of handpiece drive air slot or drive air tube as shown.
- 6. Reconnect handpiece to tubing or to swivel and operate for 20 seconds to expel excess lube.
- 7. Remove bur from chuck prior to sterilization.

Troubleshooting

Problem: LACK OF POWER Cause: Worn out turbine Correction: Refer to Turbine Installation.

Problem: BUR LOCKS IN AUTOCHUCK Cause: Debris buildup in chucking mechanism

Correction: Clean with Junk-Out Chuck Cleaner P/N 263790

Cause: Use of non-ISO burs

Correction: Always use ISO burs less than 24 mm overall length and a shank length of at

least 7.3 mm.

Problem: BUR SLIPS IN AUTOCHUCK

Cause: Use of non-ISO burs

Correction: Always use ISO burs less than 24 mm overall length and a

shank length of at least 7.3 mm.

Cause: Bur not properly installed

Correction: Remove bur from autochuck per 'Autochuck Operation' section's steps 4, 5 and 6. Then, re-install bur per 'Autochuck Operation' section's steps 1, 2 and 3.

Cause: Debris build-up in chucking mechanism

Correction: Clean with Junk-Out Chuck Cleaner P/N 263790 DO NOT USE OIL

Note: Always use ISO burs to prevent locking and slipping of burs in autochuck. If problems of locking and slipping continue, replace worn autochuck turbine immediately - see 'Replacement Parts' section for **StarDental** part numbers.

If any problem persists, contact dealer for further assistance; or, contact StarDental Technical Service at 1-866-DTE-INFO.

Replacement Part Numbers

Description

Always insist on StarDental parts for best performance.

| Description | item number |
|---|------------------|
| LubeFree Ceramic Autochuck Turbine Replacement Kit Single Four Pack | 263739 264184 |
| Lubricated Ceramic Autochuck Turbine Replacement Kit Single Four Pack | 263968 263453 |
| Lubricated Autochuck Turbine Replacement Kit Single Four Pack | 260296 |
| LubeFree Ceramic Autochuck 430 Torque Turbine Replacement Kit Single | 265877 |
| Lubricated Ceramic Autochuck 430 Torque Turbine Replacement Kit Single | 265885 |
| End Cap Wrench | 203048 |
| DentaLube II | 262539 |
| Lube Tip for use with DentaLube II | 202954 |
| Junk-Out High-Speed Chuck Cleaner | 263790 |
| | |



Fixed Swivel Back End Back End

Red Tip

Applicator

For new products, manuals and technical information, call 1-866-DTE-INFO or visit our web site at www.dentalez.com.

Item Number

Limited Warranty

O-Rings and Seals are specifically excluded from this warranty.

DentalEZ® warrants the Autochuck Turbine to be free of defects in material and workmanship, under normal usage, under the following terms:

StarDental Products: Warranty Period**:

Replacement Turbines: LubeFree Ceramic Bearing Autochuck Turbine

1 Year from date of insertion* 2 Years from date of insertion* Lubricated Ceramic Bearing Autochuck Turbine

Please note the following additional terms of our warranty and return policy:

- · Warranties cover manufacturing defects only and do not cover defects resulting from abuse, improper handling, cleaning, care or maintenance, normal wear and tear or non-observance of operating, maintenance or installation instructions. Failure to use authorized parts or an authorized repair facility voids this warranty.
- Liability is limited to repair or replacement of the defective product at our sole discretion. All
 other liabilities, in particular liability for damages, including, without limitation, consequential or incidental damages are excluded.
- THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. NO EMPLOYEE, REPRESENTATIVE OR DEALER IS AUTHORIZED TO CHANGE THIS WARRANTY IN ANY WAY OR TO GRANT ANY OTHER WARRANTY.
- The warranty on a replacement turbine begins on the date of insertion into your handpiece. The turbine must be registered on that date. Visit www.dentalez.com/warrantyreg. If turbine is not registered, warranty will begin on date of purchase. Registration must take place within 12 months of purchase
- Provided conditions in warranty are met.

PLEASE VISIT THE WEBSITE BELOW TO REGISTER YOUR STARDENTAL PRODUCT. THIS WILL ENSURE PROPER 苯 * REGISTRATION AND PROMPT AND ACCURATE SERVICE SHOULD ANY OF YOUR PURCHASES NEED EVALUATION OR REPAIR DURING THE WARRANTY PERIOD